

20050725.ba v03\_n828.bam.20050725

>From ???@??? Mon Jul 25 23:15:23 2005 -0500  
Date: Mon, 25 Jul 2005 23:14:51 CDT  
From: Old Tube Radios <boatanchors@theporch.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: BOATANCHORS digest 3828  
Message-Id: <20050726041452.D7C3540814@srvr1.theporch.com>

## BOATANCHORS Digest 3828

Topics covered in this issue include:

- 1) Heath Scope  
by Jack Antonio <scr287@sbcglobal.net>
- 2) Heath Scope again  
by Jack Antonio <scr287@sbcglobal.net>
- 3) Hickock 539B tube data?  
by Tom B <tbryan@nova.org>
- 4) Heath MR-1 and MT-1  
by Jack Antonio <scr287@sbcglobal.net>
- 5) Troubleshooting electronics by word of mouth  
by "Arden Allen" <gumbear@pacbell.net>
- 6) Re: Troubleshooting electronics by word of mouth  
by wb3fau@att.net
- 7) 2-Meter Communicator III Schematic  
by Al Klase <skywaves@webex.net>
- 8) Help identify these older military items  
by "Tom Chirhart" <sparks@codepoets.com>
- 9) Old Digests  
by Jderm740@aol.com
- 10) Re: Troubleshooting electronics by word of mouth  
by Buzz <muttman@charter.net>
- 11) Re: Troubleshooting electronics by word of mouth  
by "Marty Reynolds' debris field" <polepeeg@ba-watch.org>
- 12) SP-44 info  
by "AB Bonds" <ab@vuse.vanderbilt.edu>
- 13) RE: Troubleshooting electronics by word of mouth  
by "AB Bonds" <ab@vuse.vanderbilt.edu>
- 14) Re: Troubleshooting electronics by word of mouth  
by "Ken Hickman" <n5cm@rtconline.com>
- 15) ADMINISTRIVIA: A Few Does and Donts  
by listtown@nanniandjack.com (Mail List Owner)
- 16) Re: SP-44 info  
by "Al Parker" <anchor@ec.rr.com>
- 17) Re: SP-44 info  
by Garey Barrell <k4oah@mindspring.com>
- 18) Re: SP-44 info

by Richard Post <postr@ohiou.edu>  
19) Re: Toubleshooting electronics by word of mouth  
by "Arden Allen" <gumbear@pacbell.net>

---

Message-ID: <42E288F4.8000305@sbcglobal.net>  
Date: Sat, 23 Jul 2005 11:14:12 -0700  
From: Jack Antonio <scr287@sbcglobal.net>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Heath Scope  
Content-Type: text/plain; charset=ISO-8859-1; format=flowed  
Content-Transfer-Encoding: 7bit

I have a Heathkit scope I'd like to get rid of, I need the space, and have no time or any need to tackle it as a project.

It is a model OM-1. Operationally it makes a trace, and looks like it is functional although I did not do a rigorous check-out. I do not have the manual.

Mechanically, it is missing one knob, most of the pots are noisy and stiff, one banana jack is busted, needs a new line cord, and if there was a graticule over the scope face, it is not there now. The case itself is in pretty good shape, used but not abused condition. The only maintenance I did on it was to blow out who knows how many years of dust prior to turning it on.

I will give it to anyone who wants it for restoration and not part it out. You will have to pick up shipping which I estimate will be in the 40 to 50 dollar range, I'll pack the CRT separately, so there will be two large boxes. First come first serve, except that I will give precedence to a direct pickup in Reno, Nevada.

Thanks

Jack Antonio WA7DIA  
scr287@sbcglobal.net

---

Message-ID: <42E28A96.1040600@sbcglobal.net>  
Date: Sat, 23 Jul 2005 11:21:10 -0700  
From: Jack Antonio <scr287@sbcglobal.net>

MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Heath Scope again  
Content-Type: text/plain; charset=ISO-8859-1; format=flowed  
Content-Transfer-Encoding: 7bit

One piece of information I left out on the OM-1 scope.

It is missing the metal door on the back of the cabinet,  
but it is the same mechanically as the crystal door of the DX-40  
transmitter cabinet.

Jack Antonio WA7DIA  
scr287@sbcglobal.net

-----  
Message-Id: <6.1.2.0.1.20050723155523.06cf4980@mail.nova.org>  
Date: Sat, 23 Jul 2005 15:56:40 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Tom B <tbryan@nova.org>  
Subject: Hickock 539B tube data?  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

Hello All,

Is there anywhere I can download the tube tester settings for the Hickock 539B?

Thanks,

Tom Bryan

-----  
Message-ID: <42E2BD70.1050007@sbcglobal.net>  
Date: Sat, 23 Jul 2005 14:58:08 -0700  
From: Jack Antonio <scr287@sbcglobal.net>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Heath MR-1 and MT-1  
Content-Type: text/plain; charset=ISO-8859-1; format=flowed  
Content-Transfer-Encoding: 7bit

More stuff to leave the shack.....

I have a pretty poor condition Heath MT-1  
MR-1 combo. These are grungy, the MT-1 is missing  
the case and one knob, both have chassis corrosion.

The MR-1 cabinet shows some rust. Would be a massive restoration effort, or simply part them out.

You have to assume they do not work.

Free plus shipping from Reno, Nevada, again priority given to someone who wants to pick them up. Figure on about 30 to 40 bucks to ship.

Thanks

Jack Antonio WA7DIA  
scr287@sbcglobal.net

-----  
Message-ID: <000701c59076\$f3122340\$efe47443@KB6NAX>  
From: "Arden Allen" <gumbear@pacbell.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Troubleshooting electronics by word of mouth  
Date: Sun, 24 Jul 2005 10:41:27 -0700  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

Anchorites;

The subject should be an attention getter for most of you. How often have you tried to work on a piece of gear without a schematic and only a rudimentary knowledge of what the circuit functions were? So you talked up the problem with your electro-colleagues, made a phone call or two, wrestled with the breakers while trying to glean some knowledge during your regular BS net. In desperation you tried to contact an "expert" or manufacturer's tech support only to find out that it was as much trouble for them to help you as it was to get the help you needed. Still no schematic on the horizon. Been there, done that?

I may be living in a fantasy world but it seems to me electronics businesses used to share technical information. What's good for one is good for all. Equipment manuals came with schematics, circuit theory and parts lists so you could order replacements or acquire suitable substitutes from your local jobber or catalog distributor.

Well folks, not any more in America. The Scrooge factor now governs the market. Manuals come with little if any troubleshooting information. Instead, you get an 800 number to call. And when you call, and can get a return call, the "support" person can only answer a few irrelevant questions if any at all in too many cases. Been there, done that?

Try dig a service manual out of them and see where you get. "It's proprietary information," comes excuse. Bullcrap! It's the last grasping of a failing technology industry to stay afloat by trying to guarantee themselves of a revenue stream by extortion: You need it, you pay us to fix it for you! Been there, had that done to you?

We are now seeing the black heart of the "information age," secrecy. Keeping clients in ignorance is the way to control them and mine there pockets. The good ol' corporate culture method now extends across the land into to all avenues of enterprise because of our now universal dependence on information technology. That is why America is falling behind in the global technology race. We are eating our young.

The company I work for is hard hit by this problem. With the variety of complex equipment used in its manufacturing processes maintenance turn-around times are out of control in many cases because of lack of technical information, poor technical support, .....and suppliers who have gone out of business! Many repairs are accomplished by "tribal knowledge" with frequent failures to correct problems adequately.

Technical proffessionals should stand up and put an end to this travesty before it's too late, IMHO.

Arden Allen  
KB6NAX

-----  
From: wb3fau@att.net  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: "Arden Allen" <gumbear@pacbell.net>  
Subject: Re: Toubleshooting electronics by word of mouth  
Date: Sun, 24 Jul 2005 19:37:00 +0000  
Message-Id:  
<072420051937.2059.42E3EDDB000666710000080B21602806519A0E00CC0D99@att.net>

Good points Arden! Well, I joined this group , and have successfully repaired equipment on advice from people who use this website. True, newer gear is getting harder to fix.  
Russ.

-----  
Message-ID: <42E437EC.3040803@webex.net>  
Date: Sun, 24 Jul 2005 17:53:00 -0700  
From: Al Klase <skywaves@webex.net>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>

Subject: 2-Meter Communicator III Schematic  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Transfer-Encoding: 7bit

Gentlemen,

Is there a schiz for a Gonset 2-meter Communicator III on the web somewhere? There's a 6-meter unit on BAMA, but the exciter section is pretty different.

Al

--

Al Klase - N3FRQ  
Flemington, NJ  
<http://www.skywaves.ar88.net/>

-----  
From: "Tom Chirhart" <sparks@codepoets.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Help identify these older military items  
Date: Sun, 24 Jul 2005 21:32:52 -0400  
Message-ID: <000501c590b8\$c9895510\$6401a8c0@sparks>  
MIME-Version: 1.0  
Content-Type: multipart/alternative;  
boundary="-----=\_NextPart\_000\_0006\_01C59097.4277B510"

This is a multi-part message in MIME format.

-----=\_NextPart\_000\_0006\_01C59097.4277B510  
Content-Type: text/plain;  
charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Ok you experts, can you identify what these military units go to? If not, does anyone belong to the old military collectors group that can identify them?

Thanks

73

Tom K4NCG

AM-556/URT Electronic control amplifier  
AM519/URT Radio frequency amp.  
MD-143/URT Radio Modulator  
PP-667/URT Power supply  
PP-666/URT Power supply

-----=\_NextPart\_000\_0006\_01C59097.4277B510  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

\* \* \* \* \*  
\* ---REMAINDER OF MESSAGE TRUNCATED--- \*  
\* This post contains a forbidden message format \*  
\* (such as an attached file, a v-card, HTML formatting) \*  
\* Mail Lists at theporch.com only accept PLAIN TEXT \*  
\* If your postings display this message your mail program \*  
\* is not set to send PLAIN TEXT ONLY and needs adjusting \*  
\* \* \* \* \*

-----=\_NextPart\_000\_0006\_01C59097.4277B510--

-----  
From: Jderm740@aol.com  
Message-ID: <d4.2ca99afb.3015c3b8@aol.com>  
Date: Mon, 25 Jul 2005 00:25:28 EDT  
Subject: Old Digests  
To: Old Tube Radios <boatanchors@theporch.com>  
MIME-Version: 1.0  
Content-Type: multipart/alternative;  
boundary="-----1122265528"

-----1122265528  
Content-Type: text/plain; charset="US-ASCII"  
Content-Transfer-Encoding: 7bit

Suddenly I am getting old digests. Some are duplicates from a months ago.  
Anybody else haveing the same problem?

Jack KB1IJP

-----1122265528  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

\* \* \* \* \*  
\* ---REMAINDER OF MESSAGE TRUNCATED--- \*  
\* This post contains a forbidden message format \*  
\* (such as an attached file, a v-card, HTML formatting) \*  
\* Mail Lists at theporch.com only accept PLAIN TEXT \*  
\* If your postings display this message your mail program \*  
\* \* \* \* \*

\* is not set to send PLAIN TEXT ONLY and needs adjusting \*  
\*\*\*\*\*

-----1122265528--

-----  
From: Buzz <muttman@charter.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Troubleshooting electronics by word of mouth  
Date: Sun, 24 Jul 2005 21:41:12 -0700  
Message-ID: <clq8e1pb6hlhkq84lsv6dnn4ukqta6dpdj@4ax.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: quoted-printable

=46or years I repaired avionics equipment which was mostly discrete =  
devices. Then  
IC's began appearing, then LSI chips, and finally microprocessors. So I =  
retired  
for the second time. I stopped by the old shop last week and there was a =  
new  
Bendix / King transponder laying open on the bench. It had one =  
microprocessor  
and a few supporting devices. I asked the tech that replaced me how he =  
adjusts  
it. He told me that to test and adjust a Bendix / King transponder you =  
have to  
buy their \$38K test set. Everything is done in software so even if you =  
had a  
schematic it wouldn't do you any good.

Buzz

-----  
Message-ID: <13251.24.30.92.168.1122290253.squirrel@fracas.netboobie.org>  
Date: Mon, 25 Jul 2005 07:17:33 -0400 (EDT)  
Subject: Re: Troubleshooting electronics by word of mouth  
From: "Marty Reynolds' debris field" <polepeeg@ba-watch.org>  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: "Old Tube Radios" <boatanchors@theporch.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=iso-8859-1  
Content-Transfer-Encoding: 8bit

There's another tribe Arden. The "Deal Parasites." Example is  
a recent post to a newsgroup about a piece of Western Electric gear.



Immediate e-mail responses ensued desiring to buy or trade - not a single one on a requested schematic, history, or anything.

Another rancid corner of America's developing black techno-heart

Marty

-----  
Content-class: urn:content-classes:message  
MIME-Version: 1.0  
Content-Type: multipart/alternative;  
    boundary="----=\_NextPart\_001\_01C59130.22D0C61F"  
Subject: SP-44 info  
Date: Mon, 25 Jul 2005 10:47:17 -0500  
Message-ID: <C2E12B15D2CA56409ED5354B2AA78B0D01E41075@eecsmail.eecs.local>  
From: "AB Bonds" <ab@vuse.vanderbilt.edu>  
To: Old Tube Radios <boatanchors@theporch.com>

This is a multi-part message in MIME format.

-----=\_NextPart\_001\_01C59130.22D0C61F  
Content-Type: text/plain;  
    charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

Thanks to my pal Ray Caldwell, I now have a Hallicrafters SP-44 =  
panadaptor on my bench. The down side is that it has had a lot of =  
hacking done to it (prior to Ray's stewardship). It was recapped some =  
time ago, but unfortunately with Black Beauties and they are ALL bad.  
=20

I have the Panoramic manual for it, but the schematic does not match in =  
a number of ways. Amon other things, it has a 2AP1 instead of a 902. =  
After a half hour of jousting I downloaded the BAMA manual, only to find =  
that I had to use DejaVu to read it. Sigh. After another half hour of =  
hacking I finally got the schematic out. While it has the 2AP1 =  
configuration, there remains a difference in the power supply. The =  
schematic shows two independent windings for HV, one for the tubes and =  
one for the CRT. My version has a transformer that has a winding for =  
the CRT HV that is common with the tube HV winding and what appears to =  
be a voltage doubler configuration. Unfortunately, the actual circuitry =  
is hacked pretty badly and one of the caps has burst (love those BB's!)  
=20

Does anyone have a copy (or can they sketch) the CRT HV supply circuit =  
that uses 0.1 uf caps for doubling (I think)?  
=20

A. B. Bonds

=20

-----=\_NextPart\_001\_01C59130.22D0C61F  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

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* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
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*      is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

-----=\_NextPart\_001\_01C59130.22D0C61F--

-----  
Content-class: urn:content-classes:message  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="Windows-1252"  
Content-Transfer-Encoding: quoted-printable  
Subject: RE: Troubleshooting electronics by word of mouth  
Date: Mon, 25 Jul 2005 11:18:04 -0500  
Message-ID: <C2E12B15D2CA56409ED5354B2AA78B0D01E41076@eecsmail.eecs.local>  
From: "AB Bonds" <ab@vuse.vanderbilt.edu>  
To: Old Tube Radios <boatanchors@theporch.com>

> Well folks, not any more in America. The Scrooge factor now=20  
> governs the  
> market. Manuals come with little if any troubleshooting information.  
> Instead, you get an 800 number to call. And when you call,=20  
> and can get a  
> return call, the "support" person can only answer a few=20  
> irrelevant questions  
> if any at all in too many cases. Been there, done that?  
>=20  
> Try dig a service manual out of them and see where you get. "It's  
> proprietary information," comes excuse. Bullcrap! It's the=20  
> last grasping  
> of a failing technology industry to stay afloat by trying to guarantee  
> themselves of a revenue stream by extortion: You need it,=20  
> you pay us to fix  
> it for you! Been there, had that done to you?  
>=20  
> We are now seeing the black heart of the "information age," secrecy.  
> Keeping clients in ignorance is the way to control them and mine there  
> pockets. The good ol' corporate culture method now extends=20

> across the land  
> into to all avenues of enterprise because of our now=20  
> universal dependence on  
> information technology. That is why America is falling=20  
> behind in the global  
> technology race. We are eating our young.  
>=20  
(With apologies to Jack...)

While I am sympathetic with your complaint, the reality reflects the =  
significant changes in the way that equipment is designed, built and =  
marketed. Increasing levels of integration dictate that traditional =  
troubleshooting is no longer relevant, and with surface mount technology =  
dominating, the only service that makes sense is board-level or =  
instrument level replacement. This has to be put into the context of =  
what you get for your money. The performance level (if not reliability) =  
of even low-end Pacific Rim test equipment hugely surpasses what we used =  
to get from Tek and HP at tens or even hundreds of times the cost. This =  
leads to a throwaway mentality. If you can buy a new scope for \$200, =  
why pay the technician to fix it? Moreover, much of what is in a =  
sophisticated piece of equipment is in-house fabricated (ASIC or gate =  
array), with microprocessors and proprietary software (yes, they DO =  
deserve to protect that intellectual property) that you ain't gonna get =  
at the TV shop down the street or even from industrial jobbers. What =  
you DO get is incredible functionality for the money.

Perhaps more relevant to your complaint is the rapidly diminishing pool =  
of qualified repair artists (and I use the word purposefully). =  
Component level repair and calibration methods are no longer taught in =  
any schools except the military (they still have 70's vintage equipment =  
in those nuclear subs....). Instrument and circuit design have for all =  
practical purposes been abandoned in our engineering schools (and I am =  
in a position to know). Nearly all of that is now done with CAD systems =  
at the chip level, and it is being done in Malaysia and Singapore. =  
Costs too much here and the kids are loo lazy to learn it anyway. There =  
is thus no point in building in repairability when the Maytag guy has =  
Left the Building. Face it, Arden, you are a dinosaur.... ;)

A. B. Bonds

-----  
Message-ID: <000301c5913d\$599819a0\$174e9844@rtconline.com>  
From: "Ken Hickman" <n5cm@rtconline.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: <boatanchors@theporch.com>  
Subject: Re: Troubleshooting electronics by word of mouth  
Date: Mon, 25 Jul 2005 12:21:52 -0500  
MIME-Version: 1.0

Content-Type: text/plain;  
charset="Windows-1252"  
Content-Transfer-Encoding: 7bit

Arden and A.B. & Gang,

All the more reason to go back to sensible radio - vacuum tube equipments.  
I am presently replicating a station I had on the air from about 1950 to  
1980, all boatanchor and second to none!  
FWIW,

Ken N5CM

-----  
From: listown@nanniandjack.com (Mail List Owner)  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: ADMINISTRIVIA: A Few Does and Donts  
Date: Mon, 25 Jul 2005 11:15:00 -0700 (PDT)  
Message-Id: <20050725181500.C0516167C8@osr506.nanniandjack.com>

Gang-

Here are the real basics of how to keep me happy, the list noise-free,  
and everyone able to enjoy BoatAnchors... Simple, easy, workable...

Do not send SPAM-type e-mail messages to the list.

Do not send attachments (attached files) of \*ANY\* sort to the list.  
This includes HTML shortcuts, v-cards, GEDCOM files, zipped files, and  
\*ANY\* other type of attachment.

Do not EVER forward virus warnings (which are 99%hoaxes) or send chain  
letters to the list.

Do not use HTML or RTF (rich text format) in messages sent to the  
list.

DO keep e-mail messages to the list on topic and appropriate.

Do not post commercial messages.

Please refrain from posting "Ebay" type auction notices. Refrain from  
"seen on EBAY" posts...

DO be polite.

Do not flame other members of the list.

DO be considerate of the list members and list resources.

DO have fun!

--

73

Jack, W4KH/Mobile - - - Mailing List Archiver/Owner - - -  
listown@nanniandjack.com - "Plus ca change, plus c'est la meme chose"  
"Il n'y a que les idiots qui ne changent jamais d'idee"  
Mon Jul 25 11:15:00 PDT 2005

-----  
Message-ID: <05de01c59152\$aaf00690\$3201a8c0@w8ut>

From: "Al Parker" <anchor@ec.rr.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: SP-44 info

Date: Mon, 25 Jul 2005 15:54:28 -0400

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Hi AB,

I think I put much of that SP-44 stuff on BAMA, and didn't have any way to do .pdf back then, but do now. (why don't people like djvu, it comes up fine for me? I just wish you could extract pages from it into .jpg.) If I happen to still have the .jpg's that I originally made fm the scanner I could put it in .pdf now, or send you cc's. I do have the paper stuff I used, but right now I'm outta luck with a crapped out scanner. I'll take a look later to see if I can find what you need in the p.s. area.

73,

Al, W8UT

New Bern, NC

BoatAnchors appreciated here

<http://www.thecompendium.net/radio/>

<http://www.hammarlund.info>

----- Original Message -----

From: "AB Bonds" <ab@vuse.vanderbilt.edu>

To: "Old Tube Radios" <boatanchors@theporch.com>

Sent: Monday, July 25, 2005 11:47 AM

Subject: SP-44 info

Thanks to my pal Ray Caldwell, I now have a Hallicrafters SP-44 panadaptor on my bench. The down side is that it has had a lot of hacking done to it (prior to Ray's stewardship). It was recapped some time ago, but

unfortunately with Black Beauties and they are ALL bad.

I have the Panoramic manual for it, but the schematic does not match in a number of ways. Amon other things, it has a 2AP1 instead of a 902. After a half hour of jousting I downloaded the BAMA manual, only to find that I had to use DejaVu to read it. Sigh. After another half hour of hacking I finally got the schematic out. While it has the 2AP1 configuration, there remains a difference in the power supply. The schematic shows two independent windings for HV, one for the tubes and one for the CRT. My version has a transformer that has a winding for the CRT HV that is common with the tube HV winding and what appears to be a voltage doubler configuration. Unfortunately, the actual circuitry is hacked pretty badly and one of the caps has burst (love those BB's!)

Does anyone have a copy (or can they sketch) the CRT HV supply circuit that uses 0.1 uf caps for doubling (I think)?

A. B. Bonds

-----  
Message-ID: <42E55416.90207@mindspring.com>  
Date: Mon, 25 Jul 2005 17:05:26 -0400  
From: Garey Barrell <k4oah@mindspring.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: SP-44 info  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Transfer-Encoding: 7bit

Al -

If you have the DjVu file I can extract and PDF any pages you need.

73, Garey - K40AH  
Atlanta

Drake C-Line Service Manual  
<<http://www.k4oah.com>>

Al Parker wrote:

>Hi AB,  
> I think I put much of that SP-44 stuff on BAMA, and didn't have any  
>way to do .pdf back then, but do now. (why don't people like djvu, it

>comes up fine for me? I just wish you could extract pages from it into  
>.jpg.) If I happen to still have the .jpg's that I originally made fm the  
>scanner I could put it in .pdf now, or send you cc's. I do have the paper  
>stuff I used, but right now I'm outta luck with a crapped out scanner.  
>I'll take a look later to see if I can find what you need in the p.s.  
>area.  
>73,  
>Al, W8UT  
>New Bern, NC  
>BoatAnchors appreciated here  
><http://www.thecompendium.net/radio/>  
><http://www.hammarlund.info>  
>  
>----- Original Message -----  
>From: "AB Bonds" <[ab@vuse.vanderbilt.edu](mailto:ab@vuse.vanderbilt.edu)>  
>To: "Old Tube Radios" <[boatanchors@theporch.com](mailto:boatanchors@theporch.com)>  
>Sent: Monday, July 25, 2005 11:47 AM  
>Subject: SP-44 info  
>  
>  
>Thanks to my pal Ray Caldwell, I now have a Hallicrafters SP-44 panadaptor  
>on my bench. The down side is that it has had a lot of hacking done to it  
>(prior to Ray's stewardship). It was recapped some time ago, but  
>unfortunately with Black Beauties and they are ALL bad.  
>  
>I have the Panoramic manual for it, but the schematic does not match in a  
>number of ways. Amon other things, it has a 2AP1 instead of a 902. After  
>a half hour of jousting I downloaded the BAMA manual, only to find that I  
>had to use DejaVu to read it. Sigh. After another half hour of hacking I  
>finally got the schematic out. While it has the 2AP1 configuration, there  
>remains a difference in the power supply. The schematic shows two  
>independent windings for HV, one for the tubes and one for the CRT. My  
>version has a transformer that has a winding for the CRT HV that is common  
>with the tube HV winding and what appears to be a voltage doubler  
>configuration. Unfortunately, the actual circuitry is hacked pretty badly  
>and one of the caps has burst (love those BB's!)  
>  
>Does anyone have a copy (or can they sketch) the CRT HV supply circuit  
>that uses 0.1 uf caps for doubling (I think)?  
>  
>A. B. Bonds  
>  
>  
>  
>  
>  
>

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Mime-Version: 1.0  
Message-Id: <p05210601bf0b48534259@[192.168.1.101]>  
Date: Mon, 25 Jul 2005 22:27:24 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Richard Post <postr@ohiou.edu>  
Subject: Re: SP-44 info  
Cc: ab@vuse.vanderbilt.edu  
Content-Type: text/plain; charset="us-ascii" ; format="flowed"

Hi AB,

Generic half wave doubling. Page down to the first diagram on

<<http://www.tpub.com/neets/book7/27m.htm>>

Reverse the polarity of the diodes since you want negative voltage with respect to ground.

Been there, done that on a Panoramic Radio PCA-2 T-200 Panadaptor, the manufacturer's version of the SP-44.

Pictures at:

<<http://oak.cats.ohiou.edu/~postr/bapix/Panadap.htm>>

Here's the tinyurl forwarder for that page

<<http://tinyurl.com/bkktz>>

Mine came with the power transformer and 6X5 tubes missing. After seeing pictures of an original transformer on the web, I found a suitable tranny in the "boxe de junque". Decided to use silicon diodes for the negative high voltage for the CRT. Used 0.1 ceramic caps in place of the leaky pair of wax caps left on the chassis, (actually, I used parallel pairs of 0.047 to make up the near 0.1 since I already had those). Added a resistor input to the doubler to limit the current in case of a shorted diode. This is nearly a dry circuit, like most oscilloscope high voltage supplies, so 0.1 caps are sufficient and the input resistor sees relatively little voltage drop while protecting against high current shorts.

This shares half of the high voltage winding with the B+ supply. Center tap already grounded for the B+ supply from the same transformer.

In mine I had to mount a separate 6 volt transformer for the CRT filament and its serious negative bias. Found a small 1 amp Stancor rated at 1500 volts insulation. Works great.



73,

Rich KB8TAD

At 10:47 AM -0500 7/25/05, AB Bonds wrote:

> Hallicrafters SP-44 panadaptor on

>Does anyone have a copy (or can they sketch) the CRT HV supply  
>circuit that uses 0.1 uf caps for doubling (I think)?

>

>A. B. Bonds

>

-----  
Message-ID: <005e01c59198\$4e97e0c0\$c8e47443@KB6NAX>

From: "Arden Allen" <gumbear@pacbell.net>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: Troubleshooting electronics by word of mouth

Date: Mon, 25 Jul 2005 21:12:33 -0700

MIME-Version: 1.0

Content-Type: text/plain;

charset="Windows-1252"

Content-Transfer-Encoding: 7bit

Quoting AB:

> .....Perhaps more relevant to your complaint is the rapidly diminishing pool of qualified repair artists (and I use the word purposefully). Component level repair and calibration methods are no longer taught in any schools except the military (they still have 70's vintage equipment in those nuclear subs....). Instrument and circuit design have for all practical purposes been abandoned in our engineering schools (and I am in a position to know). Nearly all of that is now done with CAD systems at the chip level, and it is being done in Malaysia and Singapore. Costs too much here and the kids are too lazy to learn it anyway. There is thus no point in building in repairability when the Maytag guy has Left the Building. Face it, Arden, you are a dinosaur.... ;) .....

And I reply:

I KNOW I'm a dinosaur. But does that mean I should spawn baby dinosaurs? My point is being missed. Manufacturers surely could supply the info today's techs need to do the type of maintenance that today's equipment

requires to be kept running at maximum efficiency, nut manufacturers don't. Yes, today's techs are not expected to troubleshoot to the itty-bitty component level that us dinos had to learn. But it still takes a screwdriver, etc., to do repairs. Without the maintenance info they need techs can't even troubleshoot to the board or module level. Manufacturing equipment in today's dollars is more expensive than yesterday's. Doesn't wash with me. It's more like Marty's "deal pirates."

Anyway, pushing the issue any further gets us off topic. I just had to say it.

Arden Allen  
KB6NAX

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End of BOATANCHORS Digest 3828  
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